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 NEWS  1          Web Page URLs for STN Seminar Schedule - N. America
 NEWS  2          "Ask CAS" for self-help around the clock
 NEWS  3  AUG 09  INSPEC enhanced with 1898-1968 archive
 NEWS  4  AUG 28  ADISCTI Reloaded and Enhanced
 NEWS  5  AUG 30  CA(SM)/CAplus(SM) Austrian patent law changes
 NEWS  6  SEP 11  CA/CAplus enhanced with more pre-1907 records
 NEWS  7  SEP 21  CA/CAplus fields enhanced with simultaneous left and right
                  truncation
 NEWS  8  SEP 25  CA(SM)/CAplus(SM) display of CA Lexicon enhanced
 NEWS  9  SEP 25  CAS REGISTRY(SM) no longer includes Concord 3D coordinates
 NEWS 10  SEP 25  CAS REGISTRY(SM) updated with amino acid codes for pyrrolysine
 NEWS 11  SEP 28  CEABA-VTB classification code fields reloaded with new
                  classification scheme
 NEWS 12  OCT 19  LOGOFF HOLD duration extended to 120 minutes
 NEWS 13  OCT 19  E-mail format enhanced
 NEWS 14  OCT 23  Option to turn off MARPAT highlighting enhancements available
 NEWS 15  OCT 23  CAS Registry Number crossover limit increased to 300,000 in
                  multiple databases
 NEWS 16  OCT 23  The Derwent World Patents Index suite of databases on STN
                  has been enhanced and reloaded
 NEWS 17  OCT 30  CHEMLIST enhanced with new search and display field

 NEWS EXPRESS  JUNE 30 CURRENT WINDOWS VERSION IS V8.01b, CURRENT
               MACINTOSH VERSION IS V6.0c(ENG) AND V6.0Jc(JP),
               AND CURRENT DISCOVER FILE IS DATED 26 JUNE 2006.

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=> file caplus
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FULL ESTIMATED COST                                       1.26       1.26
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FILE COVERS 1907 - 2 Nov 2006 VOL 145 ISS 19
FILE LAST UPDATED: 1 Nov 2006 (20061101/ED)

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http://www.cas.org/infopolicy.html

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=> diffusion mode
        536141 DIFFUSION
          1665 DIFFUSIONS
        536628 DIFFUSION
                 (DIFFUSION OR DIFFUSIONS)
        322643 MODE
        163782 MODES
        435144 MODE
                 (MODE OR MODES)
L1         452 DIFFUSION MODE
                 (DIFFUSION(W)MODE)

=> oxygen
        742052 OXYGEN
          6958 OXYGENS
L2      746901 OXYGEN
                 (OXYGEN OR OXYGENS)

=> l1(l)l2
L3           3 L1(L)L2

=> d l3 1-3 ti fbib abs

L3   ANSWER 1 OF 3  CAPLUS  COPYRIGHT 2006 ACS on STN
TI   Phosphorus diffusion in silicon; influence of annealing conditions
AN   2002:254247  CAPLUS
DN   136:268496
TI   Phosphorus diffusion in silicon; influence of annealing conditions
AU   Christensen, J. S.; Kuznetsov, A. Yu.; Radamson, H. H.; Svensson, B. G.
CS   Department of Electronics, Royal Institute of Technology (KTH),
     Kista-Stockholm, SE-164 40, Swed.
SO   Materials Research Society Symposium Proceedings (2001), 669(Si Front-End
     Processing--Physics and Technology of Dopant-Defect Interactions III),
     J3.9.1-J3.9.6
     CODEN: MRSPDH; ISSN: 0272-9172
PB   Materials Research Society
DT   Journal
LA   English
AB   Phosphorus diffusion was studied in both pure epitaxially grown silicon
     and Cz silicon, with a substantial amount of impurities like oxygen
     and carbon.  Anneals were performed in different atms., N2 and dry O2, as
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well as in vacuum, at temps. between 810-1100°C. Diffusion coeffs. extracted from these anneals show no difference for the P diffusion in the epitaxially grown or the Cz silicon. The diffusion coeffs. follow an Arrhenius dependence with the activation energy Ea = 2.74 ± 0.07 eV and a prefactor D0 = (8 ± 5)+10-4 cm2/s. These parameters differ considerably from the previously reported and widely accepted values (3.66 eV and 3.84 cm2/s, resp.). However, vacuum anneals of the same samples result in values close to this 3.6 eV diffusion mode. Control anneals of B-doped samples, with similar design as the phosphorus samples, suggest the same trend for B diffusion in silicon: lower vs. higher values of activation energies for nitrogen and vacuum anneals, resp. These results are discussed in terms of the concentration of Si self-interstitials mediating the diffusion of phosphorus and boron.

RE.CNT 11 THERE ARE 11 CITED REFERENCES AVAILABLE FOR THIS RECORD
ALL CITATIONS AVAILABLE IN THE RE FORMAT

L3 ANSWER 2 OF 3 CAPLUS COPYRIGHT 2006 ACS on STN

TI Thermo-oxidative degradation of linear low density poly(ethylene) in the presence of carbon black: a kinetic approach

AN 2001:773652 CAPLUS

DN 136:119074

TI Thermo-oxidative degradation of linear low density poly(ethylene) in the presence of carbon black: a kinetic approach

AU Goldberg, V. M.; Kolesnikova, N. N.; Paverman, N. G.; Kavun, S. M.; Stott, P. E.; Gelbin, M. E.

CS Institute of Biochemical Physics, Russian Academy of Sciences, Moscow, 117334, Russia

SO Polymer Degradation and Stability (2001), 74(2), 371-385
CODEN: PDSTDW; ISSN: 0141-3910

PB Elsevier Science Ltd.

DT Journal

LA English

AB The mechanism of carbon black (CB) effects on the thermo-oxidative degradation of linear low d. polyethylene (LLDPE) was studied. Quant. measurement, in both the kinetic and diffusion mode, of the kinetics of LLDPE's thermo-oxidative degradation was done in four ways as follows: (i) in the absence of both CB and a stabilizer; (ii) in the absence of a stabilizer but in the presence of CB (Black Pearl 3700) (2), (iii) without CB but in the presence of an amine stabilizer (AI) (iv) with both CB and AI. The stabilizer chosen for this study was polymerized 1,2-dihydro-2,2,4-trimethylquinoline (Naugard Super Q). Measurements were done at 180° C, the AI concentration being (1.1-9.8)+10-2 mol/kg, based upon a mol. mass of 0.874 kg/mol for the monomer unit. CB concentration was 5% by weight while oxygen pressure pO2=(50-300) mm Hg. Quant. parameters for the thermo-oxidative degradation of LLDPE were established for kinetic and diffusion conditions. The kinetics of the inhibited thermo-oxidative degradation of LLDPE, in the presence of an amine antioxidant such as Naugard Super Q, was found to be essentially no different than the degradation kinetics in the presence of hindered phenolic antioxidants. It was shown that CB may act as an inhibitor albeit a rather weak one. However, during inhibition of the thermo-oxidative degradation of LLDPE with AI, CB shows itself to be an effective synergist, especially over the AI concentration range of from (2 to 6) + 10-2 mol/kg (0.4-1.2% by weight). The most probable explanation for this synergy lies in the adsorption of stabilizer radical In· onto the surface of the CB particles and a resultant decrease in the value of the rate constant k10 of the chain transfer reaction between a polymer mol. RH and Inhibitor radical In·.

RE.CNT 15 THERE ARE 15 CITED REFERENCES AVAILABLE FOR THIS RECORD
ALL CITATIONS AVAILABLE IN THE RE FORMAT

L3 ANSWER 3 OF 3 CAPLUS COPYRIGHT 2006 ACS on STN

TI Formation of pegs during high-temperature oxidation of Fe3Al containing yttrium

AN 2000:439790 CAPLUS
DN 133:123684
TI Formation of pegs during high-temperature oxidation of Fe3Al containing yttrium
AU Cho, W. D.; Kim, Insoo
CS Dept. of Metallurgical Engineering, University of Utah, Salt Lake City, UT, 84112-0114, USA
SO Metallurgical and Materials Transactions A: Physical Metallurgy and Materials Science (2000), 31A(6), 1685-1687
CODEN: MMTAEB; ISSN: 1073-5623
PB Minerals, Metals & Materials Society
DT Journal
LA English
AB The formation of pegs in the oxidation of Y-doped Fe3Al was studied using d.c. plasma anal., SEM, metallog., and electron probe microanal. to explain the effect of Y on the scale adhesion and diffusion mode. Alumina scale formed on Fe3Al-Y alloy was found to be adhesive, dense, and protective. Microstructural anal. showed that pegs in the oxidized alloys anchor the oxide scale to the alloy. The pegs formed due to an inward diffusion of oxygen that reacts with Al and Y at the grain boundaries of the substrate. No pegs were found in Y-free alloys.
RE.CNT 16 THERE ARE 16 CITED REFERENCES AVAILABLE FOR THIS RECORD
ALL CITATIONS AVAILABLE IN THE RE FORMAT

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DISCOUNT AMOUNTS (FOR QUALIFYING ACCOUNTS)	SINCE FILE ENTRY	TOTAL SESSION
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Connecting via Winsock to STN

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FULL ESTIMATED COST	21.89	23.15
DISCOUNT AMOUNTS (FOR QUALIFYING ACCOUNTS)	SINCE FILE ENTRY	TOTAL SESSION
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=> d hia
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APPS -------- AI, PRAI
BIB --------- AN, plus Bibliographic Data and PI table (default)
CAN --------- List of CA abstract numbers without answer numbers
CBIB -------- AN, plus Compressed Bibliographic Data
CLASS ------- IPC, NCL, ECLA, FTERM
DALL -------- ALL, delimited (end of each field identified)
DMAX -------- MAX, delimited for post-processing
FAM --------- AN, PI and PRAI in table, plus Patent Family data
FBIB -------- AN, BIB, plus Patent FAM
IND --------- Indexing data
IPC --------- International Patent Classifications
MAX --------- ALL, plus Patent FAM, RE
PATS -------- PI, SO
SAM --------- CC, SX, TI, ST, IT
SCAN -------- CC, SX, TI, ST, IT (random display, no answer numbers;
              SCAN must be entered on the same line as the DISPLAY,
              e.g., D SCAN or DISPLAY SCAN)
STD --------- BIB, CLASS

IABS -------- ABS, indented with text labels
IALL -------- ALL, indented with text labels
IBIB -------- BIB, indented with text labels
IMAX -------- MAX, indented with text labels
ISTD -------- STD, indented with text labels

OBIB -------- AN, plus Bibliographic Data (original)
OIBIB ------- OBIB, indented with text labels

SBIB -------- BIB, no citations
SIBIB ------- IBIB, no citations

HIT --------- Fields containing hit terms
HITIND ------ IC, ICA, ICI, NCL, CC and index field (ST and IT)
              containing hit terms
HITRN ------- HIT RN and its text modification
HITSTR ------ HIT RN, its text modification, its CA index name, and
              its structure diagram
HITSEQ ------ HIT RN, its text modification, its CA index name, its
              structure diagram, plus NTE and SEQ fields
FHITSTR ----- First HIT RN, its text modification, its CA index name, and
              its structure diagram
FHITSEQ ----- First HIT RN, its text modification, its CA index name, its
              structure diagram, plus NTE and SEQ fields
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=> d his

     (FILE 'HOME' ENTERED AT 11:31:06 ON 02 NOV 2006)
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     FILE 'CAPLUS' ENTERED AT 11:34:30 ON 02 NOV 2006
L1           452 DIFFUSION MODE
L2        746901 OXYGEN
L3             3 L1(L)L2

=> concentration
         156550 CONCENTRATION
          69403 CONCENTRATIONS
         224366 CONCENTRATION
                  (CONCENTRATION OR CONCENTRATIONS)
        1909662 CONCN
        1168852 CONCNS
        2648254 CONCN
                  (CONCN OR CONCNS)
L4      2694404 CONCENTRATION
                  (CONCENTRATION OR CONCN)

=> l2(l)l4
L5        60383 L2(L)L4

=> l4(l)l5
L6        60383 L4(L)L5

=> aldehyde
         107367 ALDEHYDE
         104068 ALDEHYDES
L7       166367 ALDEHYDE
                  (ALDEHYDE OR ALDEHYDES)

=> palladium or platinum or pd or pt
         161770 PALLADIUM
             37 PALLADIUMS
         161773 PALLADIUM
                  (PALLADIUM OR PALLADIUMS)
         209279 PLATINUM
             71 PLATINUMS
         209300 PLATINUM
                  (PLATINUM OR PLATINUMS)
         187554 PD
          2370 PDS
         189502 PD
                  (PD OR PDS)
         242575 PT
           5066 PTS
         246762 PT
                  (PT OR PTS)
L8       515937 PALLADIUM OR PLATINUM OR PD OR PT

=> l6(l)l8
L9         1804 L6(L)L8

=> l9(l)l7
L10          10 L9(L)L7

=> d l10 1-10 ti

L10  ANSWER 1 OF 10  CAPLUS  COPYRIGHT 2006 ACS on STN
TI   Kinetic Evaluation and Modeling of Lignin Catalytic Wet Oxidation to
     Selective Production of Aromatic Aldehydes

L10  ANSWER 2 OF 10  CAPLUS  COPYRIGHT 2006 ACS on STN
TI   Oxidation catalyst and oxidation method for hydrocarbons, alcohols and
     aldehydes

L10  ANSWER 3 OF 10  CAPLUS  COPYRIGHT 2006 ACS on STN
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TI Determination of aliphatic aldehydes by liquid chromatography with pulsed amperometric detection

L10 ANSWER 4 OF 10 CAPLUS COPYRIGHT 2006 ACS on STN
TI Selective Oxidation of 1- and 2-Propanol with Molecular Oxygen by Noble Metal Catalysis in "Supercritical" Carbon Dioxide

L10 ANSWER 5 OF 10 CAPLUS COPYRIGHT 2006 ACS on STN
TI Isoquinoline derivatives as endogenous neurotoxins in the etiology of Parkinson's disease

L10 ANSWER 6 OF 10 CAPLUS COPYRIGHT 2006 ACS on STN
TI High-temperature superconductors in catalysis

L10 ANSWER 7 OF 10 CAPLUS COPYRIGHT 2006 ACS on STN
TI Oxidative esterification of aldehydes

L10 ANSWER 8 OF 10 CAPLUS COPYRIGHT 2006 ACS on STN
TI Catalytic oxidation of organic compounds in flow

L10 ANSWER 9 OF 10 CAPLUS COPYRIGHT 2006 ACS on STN
TI Mechanism of oxidation processes. XXVIII. Autoxidation of aldehydes

L10 ANSWER 10 OF 10 CAPLUS COPYRIGHT 2006 ACS on STN
TI Analysis and Chemistry of Fats in 1907, Concluded

=> logoff hold

COST IN U.S. DOLLARS	SINCE FILE ENTRY	TOTAL SESSION
FULL ESTIMATED COST	40.11	41.37

DISCOUNT AMOUNTS (FOR QUALIFYING ACCOUNTS)	SINCE FILE ENTRY	TOTAL SESSION
CA SUBSCRIBER PRICE	-2.25	-2.25

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